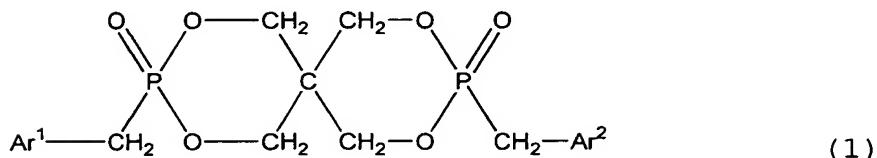


Claims

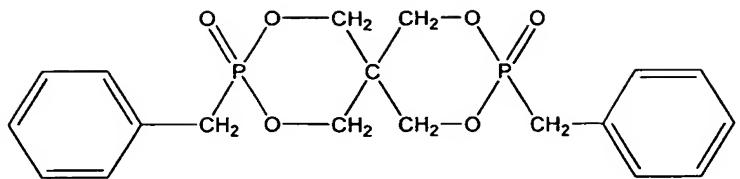
1. A flame retardant styrene type resin composition comprising (A) a styrene type resin (component A) in an amount of 100 parts by weight, (B) a polyphenylene ether type resin (component B) in an amount of 0 to 100 parts by weight, and (C) an organophosphorus compound (component C) represented by the following formula (1) in an amount of 1 to 100 parts by weight, characterized in that the organophosphorus compound (component C) satisfies:

- (i) the weight loss residue on heating at 500°C is 10% or less;
- (ii) the HPLC purity is 90% or more, and
- (iii) the acid value is 0.5 mg KOH/g or less



(where in the formula, Ar¹ and Ar² may be the same or different, and is a phenyl group which may have a substituent.)

2. The flame retardant styrene type resin composition according to claim 1, wherein the organophosphorus compound of the component C is an organophosphorus compound represented by the following formula (2).



(2)

3. The flame retardant styrene type resin composition according to claim 1, wherein the styrene type resin of the component A is a rubber-modified styrene type resin.

4. The flame retardant styrene type resin composition according to claim 1, wherein the styrene type resin of the component A is a high impact polystyrene (HIPS).

5. The flame retardant styrene type resin composition according to claim 1, wherein the styrene type resin of the component A is a rubber-modified styrene type resin of which the reduced viscosity η_{sp}/C measured with the method described in the description is 0.2 to 1.5 dl/g, and of which the rubber like polymer component content measured with the method described in the description is 1 to 50% by weight.

6. The flame retardant styrene type resin composition according to claim 1, wherein the component B is in an amount of 1 to 100 parts by weight per 100 parts by weight of the component A.

7. The flame retardant styrene type resin

composition according to claim 1, wherein the weight loss residue on heating at 500°C of the organophosphorus compound of the component C is 8% or less.

8. The flame retardant styrene type resin composition according to claim 1, wherein the HPLC purity of the organophosphorus compound of the component C is 95% or more.

9. The flame retardant styrene type resin composition according to claim 1, wherein the acid value of the organophosphorus compound of the component C is 0.4 mg KOH/g or less.

10. The flame retardant styrene type resin composition according to claim 1, wherein the component C is in a ratio of 2 to 50 parts by weight per 100 parts by weight of the component A.

11. The flame retardant styrene type resin composition according to claim 1, capable of attaining at least V-2 in the flame retardancy level of the UL-94 standard, and an average burn time in seconds of 10 seconds or less, and an limited oxygen index (LOI) of 22.0 or more when the flame retardancy level is V-2 in the form of a 1.6-mm thick test piece.

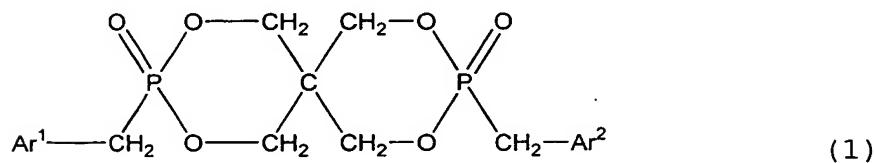
12. The flame retardant styrene type resin composition according to claim 1, capable of attaining at least V-0 in the flame retardancy level of the UL-94

standard.

13. The flame retardant styrene type resin composition according to claim 1, substantially not containing halogen.

14. A flame retardant styrene type resin composition comprising (A) a styrene type resin (component A) in an amount of 100 parts by weight, and (C) an organophosphorus compound (component C) represented by the following formula (1) in an amount of 1 to 100 parts by weight, characterized in that the organophosphorus compound (component C) satisfies:

- (i) the weight loss residue on heating at 500°C is 10% or less;
- (ii) the HPLC purity is 90% or more, and
- (iii) the acid value is 0.5 mg KOH/g or less

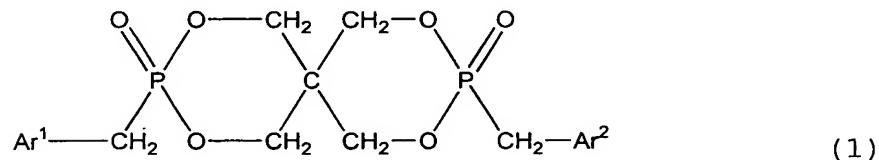


(where in the formula, Ar¹ and Ar² may be the same or different, and is a phenyl group which may have a substituent.)

15. A flame retardant styrene type resin composition comprising (A) a styrene type resin (component A) in an amount of 100 parts by weight, (B) a polyphenylene ether type resin (component B) in an amount of 1 to 100 parts by

weight, and (C) an organophosphorus compound (component C) represented by the following formula (1) in an amount of 1 to 100 parts by weight, characterized in that the organophosphorus compound (component C) satisfies:

- (i) the weight loss residue on heating at 500°C is 10% or less;
- (ii) the HPLC purity is 90% or more, and
- (iii) the acid value is 0.5 mg KOH/g or less

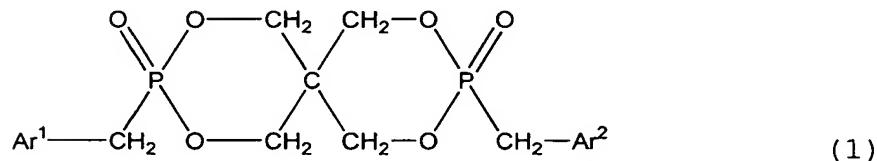


(where in the formula, Ar¹ and Ar² may be the same or different, and is a phenyl group which may have a substituent.)

16. A flame retardant styrene type resin composition comprising (A) a styrene type resin (component A), (B) a polyphenylene ether type resin (component B), and (C) an organophosphorus compound (component C) represented by the following formula (1), characterized in that per 100 parts by weight of the styrene type resin (component A), (i) the polyphenylene ether type resin (component B) is in an amount of 5 parts by weight or more, (ii) the organophosphorus compound (component C) is in an amount of 5 parts by weight or more, and (iii) the polyphenylene ether type resin and the organophosphorus compound are in

a total amount of 50 parts by weight or less, and
the organophosphorus compound (component C)
satisfies:

- (i) the weight loss residue on heating at 500°C is 10% or less;
- (ii) the HPLC purity is 90% or more, and
- (iii) the acid value is 0.5 mg KOH/g or less



(where in the formula, Ar¹ and Ar² may be the same or different, and is a phenyl group which may have a substituent.)

17. A molded product formed by the flame retardant resin composition according to claim 1.